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CASE REPORT

Eyelid hook injury – A preventable domestic injury

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KEYWORDS

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Abstract The aim of this report is to describe the presentation and management of eyelid injury resulting from the hook of a rubber string. A seven-year-old boy presented with pain of the right upper eyelid. A rubber string with metal hook ends, snatched his right eye from below. The hook pierced through his upper eyelid from the conjunctival surface and remained *in situ*. However, there was no globe laceration noted. Removal was performed by reverse-tracking of the hook through the wound. The wound was stitched with 6'0 Vicryl sutures. Healing was excellent with minimal scarring.

1. Introduction

Ocular trauma occurs up to 50% of the time in children (Grieshaber and Stegmann, 2006). Home was identified as the commonest place of injury in a study on eye injury among children and adolescent (Ashaye, 2009). Household devices with potential risk to cause ocular injury need to be used by trained person and be kept away from the children.

2. Case report

A seven-year-old boy presented with pain of the right upper eyelid. He was trying to release a rubber string, which was hooked vertically across a window. While removing the lower hook, it slipped from his hand and snatched his eye. The hook pierced through his right upper eyelid from the bulbar surface and remained *in situ*. Examination revealed a metal hook hanging on the patient's right upper eyelid. Connected to it was a rubber string, cut about 10 cm. away (Fig. 1). A closer look at the hook revealed a jagged plastic sleeve covering it and preventing the reverse-tracking of the hook.

Under general anesthesia, the wound was cleaned with povidone iodine 10%. It was situated about 7 mm above the lid margin and thus pierced the tarsal plate too. The cornea showed multiple punctate epitheliopathy especially at the centre. There was no penetrating eyeball injury noted. The tip of the hook was not pointed but had a slanting edge. The plastic sleeve of the hook was jagged at few areas and the exposed metal was rusty. Its total diameter was 4 mm.

The plastic sleeve of the hook was removed to leave a barren metal. Antibiotic ointment was used to lubricate the metal hook and the wound. The piercing portion of the metal hook was reverse-tracked through the wound till the metal hook freed from the eyelid. Wound *toilette* was done followed by suturing with 6'0 Vicryl. The wound was left exposed after antibiotic ointment applied on to it as well as in the *cul de*

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Figure 1 The metal hook pierced through the right upper lid.

sac. A review of the patient two weeks later revealed the wound had healed with minimal scar.

3. Discussion

Few cases of hook injury to the eye have been reported previously. These hooks include fishhook and tazer while the damage resulted include eyelid laceration, ocular perforation and endophthalmitis (Kamath, 2000; Knox, 2004; Weng, 2005). This case was unique as the hook implicated was different from those previously reported. The injury involved a puncture wound when the hook pierced from the bulbar conjunctival surface. However, it missed the close-by eyeball. We believe this could be due to the high velocity of the hook, down gaze position of the eyeball and the orientation of and direction from which the hook was coming to hit the eye. Reverse-tracking the piercing hook followed by suturing the wound and topical antibiotic cover resulted in healing of the wound without significant scarring.

4. Conclusion

Domestic injury from rubber string with metal hook at its ends may cause eyelid injury while sparing the globe. Reverse-tracking technique of hook removal followed by suturing resulted in complete healing of the wound.

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